WHAT IS CLAIMED IS:

1. A process for the preparation of polyamines of the diphenylmethane series, comprising

a) reacting aniline and formaldehyde in the presence of an acid catalyst to form polyamines,

and

b) neutralizing the reaction mixture with a base,

wherein at least one alcohol is present during and/or after the neutralization step, with the molar ratio of said alcohol to said formaldehyde being at least 0.02:1.

2. The process of Claim 1, wherein the neutralization of the reaction mixture occurs in the presence of said alcohol.

3. The process of Claim 2, wherein said alcohol is added at a point prior to neutralization.

4. The process of Claim 3, wherein said alcohol is introduced with at least one of the starting reactants.

5. The process of Claim 3, wherein said alcohol is directly added to the acid catalyzed reaction of aniline and formaldehyde.

6. The process of Claim 2, wherein said alcohol is added during the neutralization of the reaction mixture.

7. The process of Claim 1, wherein said alcohol is added after neutralization of the reaction.

8. The process of Claim 1, additionally comprising

c) phase separating the neutralized reaction mixture,

and

d) adding said alcohol and an additional quantity of a base to the organic phase.

9. The process of Claim 1, wherein the said base comprises an aqueous sodium hydroxide solution.

10. The process of Claim 1, wherein said alcohol is selected from the group consisting of: methanol, ethanol, n-propanol, isopropanol, monoethanolamine, N-substituted derivatives of monoethanolamine, diethanolamine, N-substituted derivatives of diethanolamine, triethanolamine, and mixtures thereof.

11. A process for the preparation of polyisocyanates of the diphenylmethane series comprising

a) reacting aniline and formaldehyde in the presence of an acid catalyst to form polyamines,

b) neutralizing the reaction mixture with a base,

and

c) phosgenating the resultant polyamines into the corresponding polyisocyanates,

wherein at least one alcohol is present during and/or after the neutralization step with the molar ratio of said alcohol to said formaldehyde being at least 0.02:1.

12. The process of Claim 11, wherein the neutralization of the reaction mixture occurs in the presence of said alcohol.

13. The process of Claim 12, wherein said alcohol is added at a point prior to neutralization.

14. The process of Claim 13, wherein said alcohol is introduced with at least one of the starting reactants.

15. The process of Claim 13, wherein said alcohol is directly added to the acid catalyzed reaction of aniline and formaldehyde.

16. The process of Claim 12, wherein said alcohol is added during the neutralization of the reaction mixture.

17. The process of Claim 11, wherein said alcohol is added after neutralization of the reaction mixture.

18. The process of Claim 11, additionally comprising:

d) phase separating the neutralized reaction mixture,

and

e) adding said alcohol and an additional quantity of a base to the organic phase, prior to said phosgenation.

19. The process of Claim 11, wherein said base comprises an aqueous sodium hydroxide solution.

20. The process of Claim 11, wherein said alcohol is selected from the group consisting of: methanol, ethanol, n-propanol, isopropanol, monoethanolamine, N-substituted derivatives of monoethanolamine, diethanolamine, N-substituted derivatives of diethanolamine, triethanolamine, and mixtures thereof.